

Amendments to the Drawings:

The attached replacement drawing sheets make changes to Figs. 1-3, and replace the original sheets with Figs. 1-3.

The attached new drawing sheet adds new Fig. 9 to the drawings.

REMARKS

Claims 1-12 are pending in this Application. By this Amendment, the specification and drawings have been amended. No new matter is added.

Reconsideration in view of the above amendments and the following remarks is respectfully requested.

I. Formal Matters

The Office Action objects to the title of the invention. The title is amended responsive to the objection. Accordingly, the Applicants respectfully request that the Examiner withdraw the objection.

The Office Action objects to Figs. 1-3 alleging that "only that which is old is illustrated." Figures 1-3 are amended to recite "Related Art" responsive to the objection. Accordingly, the Applicants respectfully request that the Examiner withdraw the objection.

The Office Action objects to the drawings alleging that the drawings fail to show every feature of the invention specified in the claims. Specifically, the Office Action asserts that "the sealing of the through holes by filling adhesives must be shown." New Fig. 9, showing the adhesive, is added responsive to the objection. Furthermore, the specification is amended to include a corresponding description of new Fig. 9. Accordingly, the Applicants respectfully request that the Examiner withdraw the objection.

The Office Action indicates that the Examiner has not considered the references cited in the April 14, 2006, Information Disclosure Statement (IDS) because copies of the references were not received. The Applicants respectfully note that a copy of the

International Search Report citing the references was submitted with the IDS, and that the IDS indicated that the references have been forwarded by the International Bureau and are available to the Examiner. The IDS also indicated that, should the Examiner require copies of the references, the Examiner is requested to contact counsel. Nevertheless, as a courtesy to the Examiner, herewith are attached copies of the cited references, the International Search Report, and the IDS filed April 14, 2006.

II. Claims Define Patentable Subject Matter

The Office Action rejects claims 1-12 under 35 U.S.C. §103(a) as being unpatentable over common knowledge; rejects claims 1-2 and 5-7 under 35 U.S.C. §102(b) as being anticipated by Pfendler (U.S. Patent No. 3,271,726); rejects claims 3-4 under 35 U.S.C. §103(a) as being unpatentable over Pfendler in view of Stobie (U.S. Patent No. 5,604,976); rejects claims 8-11 under 35 U.S.C. §103(a) as being unpatentable over Pfendler; and rejects claim 12 under 35 U.S.C. §103(a) as being unpatentable over Pfendler in view of Applicant's Admitted Prior Art (AAPA). The Applicants respectfully traverse these rejections, as follows.

A. §103(a) Rejection over "Common Knowledge"

Regarding the rejection of claims 1-12 under 35 U.S.C. §103(a) as being unpatentable over common knowledge, the Office Action asserts that "it would have been obvious to one of ordinary skill in the art at the time of the instant invention to make the waterproof terminal as claimed because all the features of these claims are common knowledge, well known and widely used in the art of electrical connectors." The Applicants respectfully traverse this rejection, as follows.

Specifically, the Office Action asserts that “joining two or a plurality of plates by using an adhesive is common knowledge and so is the joining of an article passing through holes in the plates by using adhesive in the holes to seal and join the article.” The Applicants disagree with this assertion. In particular, the Applicants acknowledge that it may be common knowledge to use an adhesive to join plates together, but assert that sealing through-holes by filling the through-holes with an adhesive, as generally recited in claim 1, is not common knowledge.

The Office Action further asserts that “the use of different known materials for the plates as well as different shapes or configuration are within the ordinary skill in the art because these require a mere selection of known materials and a change in shape is also considered within ordinary skill in the art.” The Applicants disagree and assert that, absent a showing of possible materials and/or shapes to select from, it would not have been obvious to one of ordinary skill in the art to select the types of plates recited in claim 1.

Moreover, the Office Action fails to provide documentary evidence supporting the Examiner’s assertions of obviousness.

For at least the above reasons, the Applicants respectfully submit that the features recited in claims 1-12, as well as their combination, would not have been obvious to one of ordinary skill in the art at the time of invention.

B. Rejection of Independent Claim 1

Regarding the §102(b) rejection of independent claim 1, the Applicants respectfully submit that Pfendler, Stobie, and AAPA, either individually or in combination, fail to disclose or suggest a waterproof terminal block unit characterized by

including at least the combination of a terminal block having one surface provided with one or more terminals for connecting a lead member, an insulating plate attached to said one surface of said terminal block and having a first through-hole at a portion corresponding to a portion including said one or more terminals and its surrounding region, said first through-hole reaching from a surface contacting said one surface to an opposite surface, and a metal plate attached to said opposite surface of said insulating plate and having one or more second through-holes at a portion corresponding to said one or more terminals, said one or more second-through-holes reaching from a surface contacting said insulating plate to an opposite surface, wherein said lead member is brought out to a side of said opposite surface of said metal plate through said first and second through-holes, and said first and second through-holes are sealed by adhesive filled therein, as recited in independent claim 1.

Pfendler, with reference to Fig. 8, discloses an electrical connector including a connecting means 33 having an assembly of six printed circuit boards 99-104 and an end stiffening board 98 (which the Examiner alleges corresponds to a metal plate), wherein the body of each of such boards is made of stiff electrically insulating material (Pfendler, col. 6, lines 14-20). The Applicants respectfully assert that metal is not an electrically insulating material. Furthermore, Pfendler discloses that a grommet-like thick layer 110 (which the Examiner alleges corresponds to an adhesive) may be polyurethane (Pfendler, col. 7, lines 70-74). The Applicants respectfully assert that polyurethane is not an adhesive. Furthermore, layer 110 does not seal the alleged first and second through holes by being filled therein.

Accordingly, the Applicants respectfully submit that Pfendler fails to disclose or suggest a waterproof terminal block unit including at least the above features recited in independent claim 1.

Stobie and AAPA, in combination with Pfendler, as cited by the Examiner, also fail to disclose or suggest at least the combination of features recited in independent claim 1, and therefore, fail to make up for the deficiencies of Pfendler.

C. Rejection of Dependent Claims 8-11

Regarding the §103(a) rejection of claims 8-11, the Applicants respectfully submit that Pfendler, Stobie, and AAPA, either individually or in combination, fail to disclose or suggest a waterproof terminal block unit wherein at least an insulating plate is made of a material having a linear expansion coefficient between a linear expansion coefficient of a terminal block and a linear expansion coefficient of a metal plate, as recited in dependent claims 8-11.

The Office Action, on page 5, acknowledges that Pfendler fails to disclose the above “linear expansion coefficient” feature, but asserts that “such materials are well known,” and that “it would have been obvious to one of ordinary skill in the art at the time of the instant invention to make terminal block of a material with a linear coefficient of expansion between those of the insulating plate and the metal plate, since it would require a mere selection of a known material and it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.”

The Applicants respectfully disagree and assert that it would not have been obvious to one of ordinary skill in the art to modify Pfendler with an insulating plate that

is made of a material having a linear expansion coefficient between a linear expansion coefficient of a terminal block and a linear expansion coefficient of a metal plate, as recited in dependent claims 8-11.

First of all, as discussed above with respect to claim 1, Pfendler does not disclose a metal plate, as recited in claims 8-11, but merely discloses an end stiffening board 98 that is made of the same material as that of boards 99-104.

Second of all, Pfendler discloses that each of the six printed circuit boards 99-103 and the end stiffening board 98 is made of stiff electrically insulating material such as epoxy resin impregnated glass fiber sheet known as "Panelyte" grade 1644 (Pfendler, col. 6, lines 14-20). Pfendler does not suggest or provide any motivation for varying the linear expansion coefficient of any of the boards 98-104.

Because Pfendler emphasizes that each board 98-104 is made of the same material, there is no reason to modify Pfendler as to the linear expansion coefficient of any of the boards 98-104, and thus, Pfendler teaches nothing with respect to the linear expansion coefficient of the insulating plate recited in dependent claims 8-11.

Accordingly, the Applicants submit that it would not have been obvious to one of ordinary skill in the art to modify Pfendler with an insulating plate that is made of a material having a linear expansion coefficient between a linear expansion coefficient of a terminal block and a linear expansion coefficient of a metal plate, as recited in dependent claims 8-11.

Stobie and AAPA, in combination with Pfendler, as cited by the Examiner, also fail to disclose or suggest at least the combination of features recited in dependent claims 8-11, and therefore, fail to make up for the deficiencies of Pfendler.

* * * * *

For at least the above reasons, the Applicants submit that claim 1 is allowable over the cited references. As claim 1 is allowable, the Applicants submit that claims 2-12, which depend from allowable claim 1, are likewise allowable over the cited references, as well as for the additional features they recite.

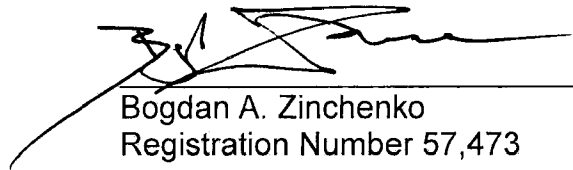
III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-12 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number set forth below.

In the event this paper is not considered to be timely filed, the Applicant hereby petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, referencing Attorney Dkt. No. 107443-00044.

Respectfully submitted,



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Attachments: Replacement Drawing Sheets (Figs. 1-3)
New Drawing Sheet (Fig. 9)
April 14, 2006, Information Disclosure Statement
International Search Report
JP 1-17736 (w/ English abstract)
JP 2000-208175 (w/ English abstract)
JP 2001-275337 (w/ English abstract)